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# NOTICE OF ALLOWANCE AND FEE(S) DUE

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09/25/2008

OCCHIUTI ROHLICEK & TSAO, LLP 10 FAWCETT STREET CAMBRIDGE, MA 02138

EXAMINER				
LE, HOA T				
ART UNIT	PAPER NUMBER			
1794	_			

DATE MAILED: 09/25/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,530	08/07/2006	Kunihiko Ishizaki	60004-118US1	9566

TITLE OF INVENTION: PARTICULATE WATER ABSORBING AGENT WITH IRREGULARLY PULVERIZED SHAPE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	12/26/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 (571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 69713 7590 09/25/2008 Certificate of Mailing or Transmission OCCHIUTI ROHLICEK & TSAO, LLP I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 10 FAWCETT STREET CAMBRIDGE, MA 02138 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/588,530 08/07/2006 Kunihiko Ishizaki 60004-118US1 9566 TITLE OF INVENTION: PARTICULATE WATER ABSORBING AGENT WITH IRREGULARLY PULVERIZED SHAPE APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1440 \$300 \$0 \$1740 12/26/2008 **EXAMINER** ART UNIT CLASS-SUBCLASS LE, HOA T 1794 428-407000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this fo Advance Order - # of Copies \_ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

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OCCHIUTI ROHLICEK & TSAO, LLP		LE, HOA T		
10 FAWCETT ST			ART UNIT	PAPER NUMBER
CAMBRIDGE, MA 02138			1794	
			DATE MAILED: 09/25/200	8

## **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 185 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 185 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	
	10/588,530	ISHIZAKI ET AI	
Notice of Allowability	Examiner	ISHIZAKI ET AL.  Art Unit	
		1704	
	H. T. Le	1794	
The MAILING DATE of this communication apperature of the second part of the communication apperature. All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comm <b>IGHTS</b> . This application is	n this application. If not included unication will be mailed in due cours	se. <b>THIS</b>
1. $\boxtimes$ This communication is responsive to <u>amendment filed Jun</u>	<u>e 12, 2008</u> .		
2. The allowed claim(s) is/are 1 and 3-21.			
3. Acknowledgment is made of a claim for foreign priority up a) All b) ☐ Some* c) ☐ None of the:  1. ☐ Certified copies of the priority documents have	e been received.	• •	
2. Certified copies of the priority documents have	• • • • • • • • • • • • • • • • • • • •		
3. Copies of the certified copies of the priority do	cuments have been receive	ed in this national stage application fi	rom the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		e a reply complying with the requirer	nents
4. A SUBSTITUTE OATH OR DECLARATION must be subminFORMAL PATENT APPLICATION (PTO-152) which give			E OF
5. CORRECTED DRAWINGS ( as "replacement sheets") must	st be submitted.		
(a) 🔲 including changes required by the Notice of Draftspers	son's Patent Drawing Revie	w ( PTO-948) attached	
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date			
<ul><li>(b) ☐ including changes required by the attached Examiner'</li><li>Paper No./Mail Date</li></ul>	s Amendment / Comment o	r in the Office action of	
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			i) of
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT	sit of BIOLOGICAL MAT FOR THE DEPOSIT OF BI	ERIAL must be submitted. Note t OLOGICAL MATERIAL.	:he
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. ☐ Notice of I	nformal Patent Application	
2. $\square$ Notice of Draftperson's Patent Drawing Review (PTO-948)		Summary (PTO-413),	
3. Information Disclosure Statements (PTO/SB/08),	Paper No 7. ⊠ Examiner's	./Mail Date s Amendment/Comment	
Paper No./Mail Date  4.  Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's	Statement of Reasons for Allowand	æ
of Biological Material	9. 🔲 Other	_·	
/H. (Holly) T. Le/			
Primary Examiner, Art Unit 1794			

Art Unit: 1794

#### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant's Representative, Jianming Hao (Reg. 54694), on September 12, 2008.

2. The application has been amended as follows:

<u>In the specification</u>: Page 24, line 19, "pulverizagion" has been changed to -- pulverization --.

## In the claims:

Claim12, line 2, "formed by" has been deleted.

Claim 13, line 1, "substrate" has been changed to -- article --;

line 2, "absorbing" has been changed to -- absorbent --.

Claim 14, line 1, "substrate" has been changed to -- article --.

Claim 18, line 4, "consinting" has been changed to -- consisting --;

last line, before "(iii)", -- and -- has been added;

last line, ", (iv) during agglomeration" has been deleted.

Claim 19, line 4, "and classifying" has been deleted;

line 4, "steps" has been changed to -- step --.

Claim 21, line 2, "15" has been changed to -- 20 --.

End of Amendment.

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### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: None of the prior art references, single or combined, teaches or suggests a particulate water absorbing ("PWA") agent having the centrifuge retention capacity ("CRC"), the particle size distribution and the water content within the ranges as required in the instant claims. Although prior art references teach crosslinking agent be added in aqueous solution during the crosslinking step (that is, water being present in the crosslinking agent solution), they fail to teach maintaining water during the crosslinking step so that the water content of 1 to 10wt% in the post-crosslinked PWA agent can be achieved as required in the instant claims. The methods disclosed in the Johnson patent (US 5,684,106) and the Frenz Publication (US 2002/0128618) involve drying to remove solvent after crosslinking, which would necessarily remove water as a result. See Johnson, col. 4, lines 43-45 and example 1, col. 6, lines 22-25; and Frenz, paragraph [0083] and Examples 1 and 2. Therefore, no water content is expected to be retained in the crosslinked PWA agent or water content cannot be controlled within the proportion as required in instant claims. The Wada publication (US 2002/0120074) teaches adding water to affect crosslinking (see Wada, paragraphs [0152]-[0153]) but fails to teach maintaining water content in the PWA agent. Simply adding water to affect crosslinking of the PWA agent is not adequate to retain a water content of 1 to 10wt% as required in the instant claims, and consequently the resulted PWA agent does not possess all the claimed properties. As shown in the instant specification, Comparative Example 1 describes a PWA agent formed from crosslinking polymerization in which a crosslinking

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agent was added with water to effect crosslinking (see instant specification, Reference Example 2). However, the process according to Comparative Example 1 does not comprise maintaining water during crosslinking, and the resulted PWA agent does not have the CRC, particle size distribution and water content that are within the range required in the instant claims. See instant specification, pages 78-80, Tables 2-4.

- 2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. (Holly) T. Le/ H. (Holly) T. Le Primary Examiner Art Unit 1794

September 12, 2008